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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,961	12/03/2004	Jack A. Holwerda	71484-0003	8576
20915	7590	08/17/2007	EXAMINER	
MCGARRY BAIR PC			WENDELL, MARK R	
32 Market Ave. SW				
SUITE 500			ART UNIT	PAPER NUMBER
GRAND RAPIDS, MI 49503			3609	
			MAIL DATE	DELIVERY MODE
			08/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/516,961	HOLWERDA ET AL.	
	Examiner	Art Unit	
	Mark R. Wendell	3609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>20050225</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 12, 15-20, 22-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Wolbrink (US 4136606). Regarding claims 1, 18-19, Wolbrink illustrates in Figures 3 and 5 a modular wall panel (100) comprising a first opening (44a) and a second opening (68), wherein the first opening is above the second opening, with a channel (12a) therein for directing air between the first and second openings,

- A fan (74) within the channel (12a) that, when activated, will urge air to move from the first opening (44a) toward the second opening (68), characterized by:
 - A heat exchanger (84) disposed within the channel (12a). The examiner notes that either item 84 or item 70 could be considered a heat exchanger. Item 84 exchanges heat between the channel and the outside room while item 70, being a motor, gives off and exchanges heat within the duct, or channel.

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- Whereby when the fan (74) and heat exchanger (84) are actuated, air will be drawn into the channel (12a) from the first opening, heated or cooled within the channel, and exhausted from the second opening at a different temperature from air entering the first opening.

The examiner notes that modular is taken to be defined as equipment made of units which can be added together to make the system larger, improve the capabilities, or expand its size. Units can be added to the structure of Wolbrink, making the prior art relied upon, modular.

Regarding claims 2 and 20, Wolbrink illustrates in Figure 3 the wall panel (100) of claim 1, wherein the heat exchanger (84) is located downstream from the fan (74).

Regarding claim 3, Wolbrink illustrates in Figure 5 the wall panel (100) of claim 2, wherein the second opening (68) is at a lower end thereof. The examiner notes that the end of the wall closest to the floor is considered the lower end.

Regarding claim 4, Wolbrink illustrates in Figure 3 the wall panel (100) of claim 3, further comprising a pair of parallel flat surfaces (12, the wall outside of 26) and a rail (88) located along the bottom edge of one of the flat surfaces (the wall outside of 26), wherein the second opening is disposed above the rail.

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Regarding claim 5, Wolbrink illustrates in Figure 5 the wall panel (100) wherein the first opening (44a) is at an upper end thereof. The examiner notes that the end of the wall closest to the ceiling is considered the upper end.

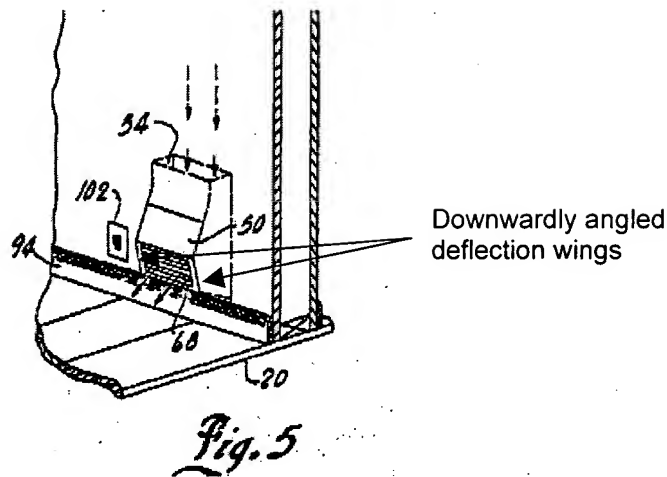
Regarding claim 6, Wolbrink illustrates in Figure 5 the wall panel (100) of claim 5, further comprising a top edge (16a), wherein the first opening (44a) is located on the top edge.

Regarding claim 7, Wolbrink discloses in Column 2, line 24, the wall panel (100) wherein the channel (12a) is a duct.

Regarding claim 12, the fan (74) and heat exchanger (70, 84) are removable from the channel (12a). The examiner notes that the use of only simple tools such as a wrench or a screw driver would be necessary to remove the objects from the wall panel.

Regarding claims 15 and 22, Wolbrink illustrates in Figures 3 and 5 the wall panel further comprising a heat/air deflector (68).

Regarding claims 16-17 and 23-24, Wolbrink illustrates in Figure 5 (modified Figure shown below) the wall panel (100) of claim 15 wherein the heat/air deflector (68) comprises two downwardly angled deflection wings.



The examiner notes that the heat/air deflector would be removable from the channel by one of routine skill in the art using simple tools.

Regarding claim 25, Wolbrink illustrates in Figure 5 the modular housing (50) comprising the heat/air deflector (68).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolbrink (US 4136606) in view of Sievert et al. (US 1976897). It is described above what is disclosed

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by Wolbrink, however Wolbrink does not disclose the duct being made of metal. It is well known within the building construction art to make ducts of metal as shown in lines 57-58 of Sievert. It would have been obvious to one having ordinary skill in the art at the time of invention to make the wall panel duct of Wolbrink from metal as described in Sievert in order for improved structural support.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wolbrink (US 4136606) in view of Morgan (US 4422573). It is described above what is disclosed by Wolbrink, however Wolbrink does not disclose the fan being an impeller fan. Morgan illustrates in Figures 1-4 an impeller fan (24) used within a heating system. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the wall panel of Wolbrink with the impeller fan, like that of Morgan, in lieu of the fan (74) of Wolbrink in order have a higher speed rotational fan to cool/heat the room quicker.

Claims 10-11, 13-14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wolbrink (US 4136606) in view of Ipsen (US 1456107). It is described above what is disclosed by Wolbrink, however regarding claims 10, 11 and 21, Wolbrink does not disclose the heat exchanger heating the air. Ipsen discloses in lines 9-13 that the electric resistance furnace / coil is used within a furnace to heat the air / room. It would have been obvious to one having ordinary skill in the art at the time of invention to modify the wall panel of Wolbrink to include the heat exchanger of Ipsen downstream from the fan in order to adequately heat an existing room, or space.

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Regarding claim 13, Ipsen illustrates in Figure 2 insulation (8) attached to the heat exchanger (9). The insulation block (8) would be between the fan (Wolbrink 74) and the heat exchanger (Ipsen 9) in Wolbrink as modified by Ipsen. It would have been obvious to one having ordinary skill in the art at the time of invention to modify the wall panel of Wolbrink to include the insulation of Ipsen between the fan and heat exchange in order to more efficiently (less heat loss) heat the outside space and to provide structural support for the heat exchanger (lines 72-75 of Ipsen).

Regarding claim 14, the insulation (8) as described above would be removable from the channel using routine tools in the art.

Conclusion


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Allison (US 4534276) teaches a room heat circulation system. Messmer et al. (US 6168518) teaches a vent structure with slotted rectangular outlet with insulation within. Panetski et al. (US 5042366) teaches a decorative air temperature equalizer column. Punzak (US 2785276) teaches a resistance heater.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Wendell whose telephone number is (571) 270-3245. The examiner can normally be reached on Mon-Fri, 7:30AM-5PM, Alt. Fri off, EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Victor Batson can be reached on (571) 272-6987. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Victor Batson
Supervisory Patent Examiner
Art Unit 3609

MRW
August 8, 2007